PAST BASE CLOSURES AND REALIGNMENTS: COSTS AND SAVINGS

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PREFACE

In December 1988, the Secretary of Defense's Commission on Base Realignment and Closure recommended the closure or realignment of 145 military installations. These recommendations will continue to be the subject of debate over the coming months.

This study provides a historical perspective on these recommendations by analyzing the savings and costs associated with closing selected military bases during the 1970s. It also provides background information on the closure and realignment process and identifies issues for the Congress to consider as it reviews the commission's recommendations.

The analysis was performed in response to a request made last year by the Chairman of the Committee on Appropriations, United States Senate. In accordance with the Congressional Budget Office (CBO) mandate to provide objective analysis, this paper contains no recommendations.

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SUMMARY

In May 1988, the Secretary of Defense established the Commission on Base Realignment and Closure to recommend specific actions to achieve a more efficient military base structure. The commission's final recommendations, if authorized by the Congress, would affect 145 military installations. Of these, 86 would be closed entirely, 5 would be closed partially, and 54 would be realigned. According to the commission, these closures and realignments will result in the reduction of 12,889 military and 7,748 civilian jobs and will eventually save $693.6 million annually in base operating costs. Even after deducting the one-time costs associated with closing bases, the net present value of savings over 20 years will total $5.6 billion.

To provide perspective on these projected savings, this report estimates the costs and savings associated with selected base closures and realignments that occurred during the 1970s. It focuses on nine bases for which adequate data were available to estimate both the recurring annual savings and the one-time net costs involved with closure or realignment. The major findings are:

- Recurring average savings ranged from a low of $12 million to a high of $23 million (in 1989 dollars), depending on the assumptions used. This compares to the commission's estimate of annual average savings of $23.1 million.

- One-time net costs (not including the costs of military construction needed as a result of relocations) averaged $6.7 million for the nine bases. This average is comparable to the commission's estimate of about $7 million (including military construction) for the average one-time costs of closing or realigning 145 bases.

- The average time needed to recapture the one-time costs was less than two years, well within the commission's recommended six-year time frame.

This report also discusses three potential issues raised by the analysis and directly related to the commission's recommendations. These include the effect of closures and realignments on the budget deficit, the problem of defining one-time costs and savings, and the method of specifying the payback period.

Recurring annual savings generally included the salary costs for military and civilian personnel as well as the base operations

and support costs that will no longer be incurred once the base is closed or realigned. Of course, these annual savings were not fully realized right away. Data on 33 major bases closed during the 1970s show that an average of 4.2 years elapsed between the announcement of the planned closure and the turnover of the property. The phaseout of personnel during the closure process affected the timing and amount of savings.

The one-time costs and savings associated with closing bases included such items as the costs for federal assistance to communities and for moving military activities to new locations and the savings from sale of property. The services were unable to provide data, however, to estimate the military construction costs associated with moving missions from closed facilities to new bases.

Although the historical costs in this report may provide helpful background, this report is not intended as an assessment of the advantages and disadvantages of the currently proposed package of base closures and realignments.

BACKGROUND: BASE CLOSURES DURING THE 1980s

No major military bases have been closed during the 1980s. This lack of closures has been attributed to a variety of factors, including:

- o legal impediments that both prohibit and delay base closings;
- o lack of financial incentives to the Department of Defense to reduce the number of bases; and
- o the expansion of the military force structure in the early 1980s.

Legal Impediments. In recent testimony to the House Armed Services Committee, Secretary of Defense Frank Carlucci cited legislation that either prohibits specific base closures or delays such closures indefinitely as a major obstacle to reducing the number of bases. Secretary Carlucci noted that certain provisions in various Department of Defense (DoD) authorization and appropriations acts prevented the services from closing specific bases, including Fort Douglas, Utah; Whiting Field, Florida; and Mather Air Force Base, California. He also identified the National Environmental Policy Act (NEPA) as an example of legislation used by opponents of closure to delay base closings. This act mandates a time-consuming process of environmental and local impact studies, public hearings, and appeals before closings can occur. Efforts to close Loring and Richards-Gebaur Air Force Bases during the 1970s, for instance, foundered when NEPA's provisions were applied.

Lack of Financial Incentives. The lack of financial incentives to DoD has been a major long-term impediment to base closures. Since 1949, the provisions of the Federal Property and Administrative Services Act (FPASA) have prohibited DoD from benefiting financially from the disposal of defense properties. On the other hand, DoD must assume the near-term costs of closing or realigning bases. This failure to provide balancing incentives for DoD discourages it from seeking the most efficient base structure.

Expansion of the Military Force Structure. During the early 1980s, the military force structure expanded significantly; for example, the number of active Army divisions increased from 16 to 18 and that of Air Force fighter squadrons from 74 to 79. Since the size of the base support structure generally corresponds with the size of the force structure, there was no apparent need to close bases in view of the expanding force structure.

Since 1985, however, the environment for closing military bases has changed significantly. The Base Closure and Realignment Act of 1988 contains provisions that remove some of the legal impediments to closure and provide important new financial incentives to DoD to close excess bases and achieve a more efficient base structure. For example, the act allows the closure process to begin before the environmental requirements of NEPA have been met. It also requires that revenues from the sales of facilities be placed in a fund that can be used to offset the costs of closing bases. Moreover, the defense budget has declined in real terms in recent years, and there is little prospect for significant growth in the immediate future. Savings and efficiencies, such as can be made by closing and realigning bases, can help alleviate long-term budgetary constraints. In addition, DoD does not currently anticipate further expansion of the force structure. As a result, the need to maintain or expand the base structure is lessened.

BASE CLOSURES DURING THE 1970s

In contrast to the 1980s, hundreds of defense installations were closed or realigned during the 1970s. Many of these reductions corresponded with the draw-down of U.S. involvement in Vietnam. Others promised savings through the realignment of operational units. Whether any savings were realized, however, is not known because no analysis was conducted subsequently to assess the costs and savings of these base closures and realignments.

Unfortunately, the data necessary to conduct a comprehensive analysis of costs and savings of past closures and realignments either no longer exist or were unavailable to CBO. Enough data were available, however, to permit a general assessment of the major costs and benefits associated with closing nine major bases in the 1970s. Data were sufficient for these bases to estimate both recurring annual savings and one-time costs and savings. These two measures could then be used to determine the payback period, the length of time needed to recapture the initial outlays.

Recurring Annual Savings

Base closures and realignments usually result in some recurring annual savings. These include the salaries of those military and civilian personnel no longer required as a result of closing or realigning a base and the reductions in base operations and support (BOS) costs (costs for lights, heat, administration, and other non-

pay costs of maintaining a base). For the nine major base closings in this study, recurring annual savings averaged $12.7 million annually under the assumptions for a low estimate, $15.6 for the medium estimate, and $22.9 for the high estimate (see Table 1).

TABLE 1. RECURRING ANNUAL SAVINGS
(In millions of 1989 dollars)

Base	Low Estimate	Medium Estimate	High Estimate
Craig AFB	10.3	11.1	18.0
Forbes AFB	15.5	16.7	18.8
Fort MacArthur	7.9	9.4	19.7
Frankford Arsenal	15.3	24.3	51.5
Kincheloe AFB	14.8	18.0	22.2
Richards-Gebauer AFB	16.0	26.1	32.3
Rickenbacker AFB	6.6	6.6	6.9
Webb AFB	11.8	12.3	20.1
Westover AFB	15.6	16.1	16.3
Total	113.9	140.6	205.8
Average per Base	12.7	15.6	22.9

SOURCE: Congressional Budget Office based on Department of Defense data.

NOTE: Includes savings for military and civilian personnel salaries and related base operations and support costs.

The upper end of this range is consistent with the average savings of $23.1 million per base estimated by the Commission on Base Realignment and Closure for the bases it recommended for closure or realignment.[1] It should be noted, however, that the historical figures represented only major base closures, whereas

1. Base Realignments and Closures, Report of the Defense Secretary's Commission on Base Realignment and Closure (December 1988).

the commission's recommendations include a mix of larger and smaller bases.

Military Personnel Savings. The services were not able to provide data on the actual reductions in numbers of military personnel resulting from the closing of the nine bases. The savings for military personnel salaries were therefore estimated based on several assumptions. CBO did have data on the total numbers of military personnel at each of the bases and on the current fraction of military personnel employed in base operations and support (about 11.4 percent). It then assumed that this same fraction of military personnel were involved in base operations and support at these nine bases. It further assumed that all personnel billets involved in base operations and support could be eliminated--that is, that none were needed to expand operations at the bases that absorbed missions from the nine closed facilities. The estimated military personnel salary savings also rest on the assumption that BOS functions at the nine bases required the same average skill levels as BOS functions in today's military. Finally, the non-pay BOS costs associated with maintaining military personnel at a base were estimated by assuming that closing a base resulted in savings of $1,725 per military person at the base--the average current factor for these non-pay costs.

Civilian Personnel Savings. A range of savings was estimated for civilian personnel. The low estimate of savings for civilian personnel was calculated using the same methodology applied to military personnel; that is, civilian costs saved at each base equal the total civilian payroll at the base times the fraction (29.7 percent) of civilians currently involved in base operations. Savings for civilians included in the medium estimate are based on historical data identifying the proportion of civilians at the nine bases (about 50 percent) who did not find alternative employment within DoD or the federal government. Finally, savings for civilians in the high estimate were set equal to the total civilian payroll at the base. As with military personnel, the non-pay BOS costs associated with maintaining civilians at a base were estimated to average about $1,725 per civilian employed at each of the closed bases.

This wide range of assumptions about savings associated with civilian personnel reflects uncertainty about what actually happened to civilians at bases closed in the 1970s. Did most leave government service or take jobs that would otherwise have been filled by new hires (as the high savings assume they did)? Or did most remain on the payroll and move to the bases that absorbed the military missions previously performed on the closed bases (as is

more consistent with the low end of the range)? Unfortunately, a clear answer cannot be obtained from the available data.

Time Required for Closure. These annual savings were not fully realized until the bases in the 1970s were fully closed. How long did that take? Data on the 33 major bases closed in the 1970s showed that it required an average of 4.2 years from the time the base closure was announced until all land was transferred from DoD control. There were, however, a wide range of delays between announcement and closure. Most bases were closed within one or two years, but a few closures, such as Frankford Arsenal and the Truman Annex, required more than 10 years to complete.

One-Time Costs and Savings

Closing and realigning bases may involve significant initial, one-time costs that could affect a decision whether or not to close a base. If one-time costs are so large that they are not offset by recurring savings for many years, for example, it might be inadvisable on economic grounds to close a base.

Costs. One-time costs include expenditures to relocate personnel and equipment, to provide impact assistance to individuals and communities, and to conduct environmental cleanup. In some cases, the initial costs of closing a base could include construction costs at a receiving base if they become necessary to accommodate personnel and equipment being transferred. In the case of the nine bases studied, the services were unable to provide data on the costs of transferring equipment or of additional military construction that may have been required. Data were available, however, on the costs of relocating personnel and the costs of federal impact assistance. Relocation costs were estimated based on current average costs for permanent change of station (PCS) applied to the estimated number of military and civilians relocated as a result of closure or realignment. For the military, these costs were based on the number of military personnel minus those estimated to be assigned to base operations and support functions. They include an adjustment to compensate for normal PCS rotations that would have occurred in the absence of a base closure. For civilians, PCS costs were based on the actual number of persons assigned to other DoD or other federal government positions outside their commuting area at the time of closure or realignment.

Savings. The one-time costs of closure can be partially offset by revenues obtained through the sale of property and assets. In the past, the General Services Administration (GSA) has managed the sale of excess DoD properties, an arrangement that has, in some

cases, involved extended periods of time before sales are completed and revenues are received. Under the provisions of the Base Closure and Realignment Act, DoD is now authorized to manage the sale and disposal of its excess properties, and must deposit revenues received into a special account for use to offset the initial costs of base closures and realignments. Whether this new arrangement will affect the extent and timing of the disposal of DoD properties is not clear.

Net Costs. Net initial costs of closure or realignment were calculated as the difference between one-time revenues from the sale of property and assets, and one-time costs of federal impact assistance and relocation costs for military and civilian personnel (see Table 2). For the nine bases studied, the total sales revenues approximately equaled the total amount of federal impact assistance, so that net initial costs were largely those of relocating personnel.

TABLE 2. ONE-TIME COSTS AND SAVINGS
(In millions of 1989 dollars)

Base	Savings	Costs		
	Sales of Property and Assets	Federal Impact Assistance	Relocating Personnel	Net Costs
Craig AFB	6.8	12.1	5.4	10.7
Forbes AFB	15.3	9.1	7.4	1.2
Fort MacArthur	5.1	0.9	4.6	0.4
Frankford Arsenal	3.7	27.8	10.0	34.1
Kincheloe AFB	6.9	19.9	7.4	20.4
Richards-Gebauer AFB	13.4	1.1	8.7	-3.6
Rickenbacker AFB	9.9	0.2	3.0	-6.7
Webb AFB	6.4	7.1	6.1	6.8
Westover AFB	14.8	4.7	7.2	-2.9
Total	82.3	82.9	59.8	60.4
Average per Base	9.1	9.2	6.6	6.7

SOURCE: Congressional Budget Office based on Department of Defense and General Services Administration data.

These initial one-time net costs for the nine bases averaged about $6.7 million. (This figure should be considered a low estimate, since no costs of relocating equipment or additional construction are included.) They are comparable to the average one-time net costs for bases that the commission has recommended for closure or realignment, about $7.0 million. According to the commission, this figure includes "consideration of" the costs of construction, personnel retirements and severance pay, personnel and equipment relocation, and purchases and sales of property. The commission did not include the costs of hazardous waste cleanup or federal impact assistance, because they considered these costs to be minimal.

It is interesting to note that revenues from sales of property at the closed bases were only a fraction of the total value of the bases. At the 33 bases for which data were available, revenues from sales accounted for 35 percent of the total value of property sold or transferred. Apparently, many bases were given away or sold at a fraction of their value--perhaps to assist local communities whose economies were affected by the base closures.

Finally, the speed with which one-time costs were incurred, and one-time savings realized, varied widely. For example, more than 70 percent of federal impact assistance was provided within two years of commencement of closure, while less than 1 percent of revenues from sales were received.

The Payback Period

The commission allows a six-year time frame for recapturing the initial net costs of closing or realigning a base. Specifically, the commission's charter directs its members to recommend bases for closure or realignment when "total cost savings . . . will, by the end of the six-year period beginning with the date of the completion of the closure or realignment of the base, exceed the amount expended to close or realign the base."[2] This payback period can be estimated by using the one-time net cost figures in Table 2 and the recurring savings figures in Table 1. Table 3 shows the estimated payback periods for the nine bases according to the various assumptions concerning recurring savings. Even assuming the lowest estimate of recurring annual savings, one-time costs were paid back within an average of less than two years, well within the six-year limit specified in the commission's charter.

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2. Secretary of Defense, letter of May 3, 1988, "Commission on Base Realignment and Closure."

Thus, history seems consistent with the commission's calculations, which show that 42 bases recommended for closure or realignment meet the six-year payback criteria.

TABLE 3. YEARS TO RECOVER ONE-TIME COSTS

Base	Assume Low Savings	Assume Medium Savings	Assume High Savings
Craig AFB	2	1	1
Forbes AFB	1	1	1
Fort MacArthur	1	1	1
Frankford Arsenal	3	2	1
Kincheloe AFB	2	2	1
Richards-Gebauer AFB	1	1	1
Rickenbacker AFB	1	1	1
Webb AFB	1	1	1
Westover AFB	1	1	1

SOURCE: Congressional Budget Office.

ISSUES RAISED BY THE HISTORICAL COSTS

In reviewing the commission's recommendations, the Congress should consider a number of issues raised in the course of researching the costs of past base closures and realignments.

How Will Savings Affect the Deficit?

Most savings from base closures and realignments stem from reduced personnel costs. But personnel reductions will reduce the federal budget deficit only to the extent that personnel at affected bases are eliminated from the federal work force or take jobs that would otherwise have been filled with new hires. If, for example, the jobs at one base are transferred to another base, then no deficit reduction would occur. While this point is obvious, the historical data suggest that it is difficult to ascertain exactly how many

personnel at closed facilities leave the work force or take jobs that would otherwise have been filled by new hires. Thus, the Congress should examine the extent to which the commission's estimated savings will actually reduce the deficit.

At the same time that base closures reduce overall military and civilian end-strength requirements, DoD may wish to augment personnel authorizations in unrelated areas, or undertake entirely new mission activities, using the authorizations "freed up" by base closures. If this occurs, savings realized as a result of closures could be largely offset or at least obscured. Thus, any such decision to increase personnel beyond those required to satisfy existing missions should be viewed as a separate decision to increase end strength, with accompanying increases in cost.

Defining One-Time Costs and Savings

In calculating its estimates of one-time costs and savings, the commission elected not to consider several elements of costs. The costs of environmental cleanup, for example, are not included because the commission assumes that DoD will eventually have to bear the costs whether or not the base is closed. On the other hand, at current levels of funding it will be many years before all DoD bases are cleaned up. If cleanup efforts are accelerated as a result of base closures, some might consider these costs to be a result of the decision to close a base.

In addition, the commission does not address the costs of federal impact assistance, assuming that they would be negligible. Data for the nine bases analyzed in this report indicate that such costs are relatively minor, but in general they approximated revenues from sales. If the commission projects revenues from sales as part of savings to be gained, then it might be appropriate to project potential impact assistance. Including impact assistance could also significantly affect the timing of costs and savings because, historically, federal impact assistance was required before revenues were received from sales.

Defining the Payback Period

The commission's charter (but not the legislation establishing the commission) states that the payback should be within six years of the "date of the completion of the closure or realignment of the base." It did not, however, define the "date of completion" more precisely. In the nine-base study, the completion of a base closure was defined as the date on which land was transferred from

federal control. The numbers in this analysis, and the estimates for proposed closures made by the commission, suggest that payback will usually be achieved within just a few years. Nonetheless, the payback period could become an issue if one-time costs rise (for example, because some costs of environmental cleanup are included) or if one-time savings decline (perhaps because revenue from property sales is lower than expected). Therefore, the Congress may wish to establish such a definition.

NEW FACTORS FOR THE 1990s

The work of the Commission on Base Realignment and Closure is the first major effort to achieve a more efficient base support structure since the 1970s. The historical data on base closures in the 1970s included in this report provide perspective for assessing the costs in the commission's report and raise some issues regarding those costs. Several factors, however, will make the environment for base closures in the early 1990s different from the one in the 1970s. Foremost among these factors are the added control over base closures granted to DoD by the act that set up the commission and the strong emphasis on achieving efficiencies in the DoD that could help reduce the federal deficit. Thus, history is only one of the many guidelines that the Congress will want to use in assessing the base closures and realignments proposed by the commission.